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BEFORE THE

Federal Communications Commission FILE COPY ORIGINAL

WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
An Allocation of Spectrum for the Private Mobile Radio Services	)	**RM-9267**
	)	
	)	

To: The Commission

COMMENTS
OF THE
AMERICAN PETROLEUM INSTITUTE

The American Petroleum Institute ("API"), by its attorneys, pursuant to Section 1.405 of the Rules and Regulation of the Federal Communications Commission ("Commission"), respectfully submits these Comments in response to the Public Notice released by the Commission on April 30, 1998 (Report No. 2272), regarding the Land Mobile Communications Council's Petition for Rule Making for an allocation of spectrum in the Private Mobile Radio Services ("LMCC Petition"). API strongly supports the Petition and urges the Commission to seize this opportunity to recognize the continuing importance of and need for private mobile radio systems.

I. BACKGROUND

1. API is a national trade association representing approximately 300 companies involved in all phases of the petroleum and natural gas industries, including exploration, production, refining, marketing and transportation of petroleum, petroleum products and natural gas. The API Telecommunications Committee is one of the standing committees of the organization's Information Systems Committee. The Telecommunications Committee evaluates and develops responses to state and federal proposals affecting telecommunications facilities used in the oil and gas industries.

2. API's Telecommunications Committee is supported and sustained by licensees that are authorized by the Commission to operate, among other telecommunications systems, facilities in the Private Mobile Radio Service ("PMRS"). API's members utilize these systems to support the search for and production of oil and natural gas, to ensure the safe pipeline transmission of natural gas, crude oil and refined petroleum products, to process and refine these energy sources and to facilitate their ultimate delivery to industrial, commercial and residential customers. Due to the importance of PMRS systems to the operations of its members, API has participated in all of the Commission's major rule making proceedings addressing use of the spectrum in this service. API also is a member of the LMCC and was involved in the preparation of the LMCC Petition.

II. COMMENTS

A. The Oil and Gas Industries Require an Expanded PMRS Spectrum Allocation to Accommodate New Wireless Technologies and Applications

3. In its Petition, the LMCC thoroughly documented the extent to which existing PMRS bands have become congested. (LMCC Petition at 10-18 and Appendices B through E.) The Petition also explains why spectrum "refarming" in the bands below 512 MHz will provide only limited relief and how the ongoing reallocation of PMRS spectrum to CMRS use has exacerbated the spectrum shortage facing PMRS users. (LMCC Petition at 15-16 and 18-20.) As a result of this shortage, API members have been hampered in their ability to implement new technologies and applications that would greatly enhance the safety and efficiency of their operations.

4. Of particular need to PMRS users in the oil and natural gas industries is spectrum on which various wide-band applications such as mobile data and slow-scan video systems could be implemented. For example, oil companies engaged in exploration and production activities in offshore waters such as the Gulf of Mexico would benefit greatly from access to wide-band channels for the high-speed transport of seismic data from one vessel to another. In addition, the availability of spectrum for advanced mobile data systems would enable field personnel to perform their tasks more safely and efficiently through remote access to vital information from oil and gas production

facilities, storage tanks, pipelines and other critical installations. In the absence of such mobile data systems, an operator would be required to remain in the company's control room at all times to monitor the incoming data, rather than being able to retrieve the required information from field patrol vehicles while performing other tasks. Additional PMRS spectrum capacity also could be employed for "imaging" applications for pipeline mapping and slow-scan video systems to monitor security at refineries and other remote or potentially volatile locations.

5. Presently, neither commercial nor private systems can meet the needs of the oil and gas industries for spectrum applications such as mobile data. Commercial providers such as cellular and PCS companies simply do not offer these services in the required areas of operation (see further discussion in Section II.B. below). Moreover, due at least in part to the heavy loading requirements applicable to existing PMRS channels, there typically is insufficient excess capacity on these private channels for mobile data operations. As a result of these factors, companies are generally forced to rely upon unlicensed, spread spectrum technology which is not required to be coordinated, thereby making it potentially susceptible to harmful interference.

6. The new allocations requested in the LMCC Petition also would support simple emerging technologies such as trunking, which cannot be implemented on low band (30-50 MHz) channels and for which other PMRS bands have become too

congested. Moreover, low band channels are likely to experience decreasing use in the future, even for conventional operations, as equipment manufacturers accelerate their development and production efforts for other more favorable spectrum. Accordingly, low band PMRS users ultimately will be persuaded to move their operations to new spectrum in order to take advantage of new technology. In the absence of additional PMRS allocations such as those requested in the LMCC Petition, there is unlikely to be adequate spectrum available for these purposes.

B. The Needs of PMRS Users Cannot be Fully Satisfied by Commercial Systems

7. While the Commission likely is aware of many of the critical support functions provided to private industry by mobile radio systems, it may believe that these functions can be served exclusively by commercial systems. This is simply not the case. The LMCC Petition accurately describes the numerous reasons why it is "impractical and often impossible" for the PMRS community to meet all of its needs with Commercial Mobile Radio Services ("CMRS"). (LMCC Petition at 21.) In particular, PMRS users have unique requirements for immediacy, control, capacity, reliability, equipment and geographic coverage that CMRS systems often are not capable of satisfying. (See LMCC Petition at 21-28.)

8. The inability of commercial systems to meet the needs of PMRS users is particularly salient with regard to PMRS users in the oil and natural gas industries. In supplying the nation with critical sources of energy, these industries engage in operations that pose an inherent and unavoidable risk to public safety and the environment. Through the implementation of sophisticated PMRS systems, these industries are able to reduce this risk to the greatest possible extent and to minimize the damage when dangerous situations do arise. Toward this end, oil and natural gas pipeline companies typically require highly reliable two-way mobile radio coverage along their entire pipeline rights-of-way, which often include rural and other sparsely populated areas. While PMRS systems can be licensed and constructed in the precise locations where coverage is needed, CMRS systems are not designed to follow pipeline rights-of-way and generally do not serve remote areas; as a result, commercial systems cannot provide the full extent of necessary coverage.

9. Oil and natural gas companies also have experienced difficulties in obtaining from commercial providers all of the particular types of services and equipment that they require. For instance, some CMRS licensees do not offer dispatch service (a necessity along pipeline rights-of-way) or provide such service only at a price that is significantly higher than basic two-way service. Additionally, CMRS providers ordinarily do not offer the "intrinsically safe" equipment that is required under the Occupational Safety & Health Act to be used in potentially hazardous environments such

as oil refineries. (See LMCC Petition at 26.) Manufacturers of PMRS systems, by contrast, are familiar with these requirements and design equipment that meets all applicable safety standards.

10. As the following "real life" examples demonstrate, requiring API members to rely exclusively or primarily on commercial systems could have devastating consequences to public safety and the integrity of the natural environment:

- In October 1997, there was a major blizzard in Colorado, during which cellular telephone service was tied up due to heavy usage by stranded individuals requesting emergency assistance. By relying on its private radio systems, Colorado Interstate Gas Company was able to dispatch its personnel to meter stations so as to ensure the continuous flow of natural gas to millions of customers on Colorado's Front Range.

- On March 23, 1994, Texas Eastern Gas Pipeline Company experienced a pipeline explosion and ensuing fire in Edison, New Jersey, in close proximity to an apartment complex. The press rushed to the scene and monopolized all available cellular telephone channels. At the same time, Texas Eastern required access to wireless communications in order to remotely shut off its pipelines and prevent the fire from spreading. Due to the unavailability of cellular service, Texas Eastern had to rely exclusively on its private radio systems.

- On February 11, 1994, there was a severe ice storm in the area of Shaw, Mississippi, which caused a number of radio towers to topple. As a result, no cellular service was available. Trunkline Gas Company nonetheless was able to operate its private radio system with an emergency tower, thereby enabling Trunkline personnel to continue to monitor and control Trunkline's pipeline system and to communicate with personnel at an adjacent compressor station.

In short, while commercial systems are a valuable resource to many individuals and businesses, the Commission must recognize that they simply cannot serve as a substitute in all instances for the private systems which support our nation's critical infrastructure industries. Moreover, industries that cannot be fully served by commercial wireless systems should not be precluded from having access to advanced mobile wireless technologies due to a lack of PMRS spectrum that is suitable for these purposes.

III. CONCLUSION

11. In light of the foregoing considerations, API urges the Commission to move forward as soon as possible on the LMCC's request for additional PMRS spectrum allocations. Such action would greatly facilitate the efforts of API members to monitor and control their critical operations using the most advanced and efficient mobile radio systems that are available.

WHEREFORE, THE PREMISES CONSIDERED, the American Petroleum Institute respectfully urges the Federal Communications Commission to act in a manner fully consistent with the views expressed herein.

Respectfully submitted,

AMERICAN PETROLEUM INSTITUTE

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Dated: June 1, 1998